

RN95059D1

Preliminary Amendment

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~~size is between 10 and 1000 nanometers, wherein the particles have an accessible acidic functional group content, being the acidic functional groups, which are at most 5 nanometers from the surface of the particle-continuous aqueous phase interface, of between 0.2 and 1.2 milliequivalents/gram of solid matter, and an accessible alcoholic functional group content, being the hydroxyl functional groups, which are at most 10 nanometers from the surface of the particle-continuous aqueous phase interface, of between 0.3 and 1.5 milliequivalents/gram, and wherein said polymer or copolymer particles are originated from a copolymerization between at least one free acid monomer containing an activated ethylenic bond and at least one free alcohol, and, wherein a unit originating from said free alcohol monomer contains an activated ethylenic functional group which has a content of between 3 and 15 % (mole).~~

31. (New) A composition according to claim 30, wherein the accessible acidic functional group is a carboxylic group.

32. (New) A composition according to claim 30, wherein the particle solid content of the latex is between 10 and 80 % on a mass basis.

33. (New) A composition according to claim 32, wherein the content of the particles is between 10 and 60 % on a mass basis.

34. (New) A composition according to claim 30, wherein the acidic functional groups of the particles of the population A are weak acidic functional groups whose pK_a is at least 2.

35. (New) A composition according to claim 34, wherein pK_a is 3.

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36. (New) A composition according to claim 30, wherein the population A has a dispersity of $([d_{90} - d_{10}]/d_{90})$ between 0 and 1/4.
37. (New) A composition according to claim 30, wherein the average molecular mass by weight of the polymer or copolymer is between 5×10^4 and 5×10^6 .
38. (New) A composition according to claim 30, wherein the said free alcohol monomer containing an activated ethylenic functional group is a diol monoesterified with an alpha-ethylenic acid.
39. (New) A composition according to claim 30, wherein the content is between 4 and 10 % (mole).
40. (New) A composition according to claim 38, wherein the said diol is an ω, ω' -diol.
41. (New) A composition according to claim 30, wherein the said free acid monomer is acrylic acid or one of its salts.
42. (New) A composition according to claim 30, wherein the unit originating from the free carboxylic acid monomer has a content of between 2 and 10 % (mole).
43. (New) A composition according to claim 30, wherein the particles are originated from a core covered by surface polymerization of said polymer or copolymer.
44. (New) A composition according to claim 30, further comprising up to 2 % by weight of an emulsifier.

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45. (New) A composition according to claim 30, further comprising a population B of particles bearing isocyanate functional group(s).

46. (New) A composition according to claim 45, wherein the said isocyanate functional groups are masked.

47. (New) A composition according to claim 45, wherein the isocyanate functional group content is between 0.5 and 1 milliequivalent/gram of particles of population B.

48. (New) A composition according to claim 47, wherein the mass ratio of the populations A and B is such that the ratio of the alcohol functional groups to the isocyanate functional groups is between 0.1 and 10.

49. (New) A composition according to claim 48, wherein the ratio of the alcohol functional groups to the isocyanate functional groups is between 0.3 and 5.

50. (New) A composition according to claim 45, wherein the population B constitutes an emulsion with the aqueous phase.

51. (New) A composition according to claim 45, wherein the population B constitutes a latex with the aqueous phase.

52. (New) A composition according to claim 45, wherein the populations A and B coincide to constitute a population of particles containing free carboxylic functional groups, free alcohol functional groups and isocyanate functional groups at the same time.

53. (New) A composition according to claim 52, wherein the ratio (equivalent) of the isocyanate to the alcohol functional groups is between 0.1 and 10.

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54. (New) A composition according to claim 52, wherein the ratio, (equivalent), of the alcohol functional groups to the carboxylic functional groups is between 0.2 and

5.

55. (New) A composition according to claim 52, wherein the ratio (equivalent), of the isocyanate to the carboxylic functional groups, is between 0.1 and 10.

56. (New) A composition according to claim 30, further comprising pigments.

57. (New) A paint or a varnish comprising a composition according to claim 30.

58. (New) A process for the preparation of a coating comprising the step of application onto a support of a composition according to claim 30.

59. (New) A process according to claim 58, wherein the said composition contains at least one isocyanate functional group and further comprising a step of curing at a temperature of between 120 and 200°C.

60. (New) A composition according to claim 40, wherein the said diol is 1,3-propanediol or glycol.

61. (New) A composition according to claim 30, further comprising isocyanates.

62. (New) A composition according to claim 61, wherein the isocyanates are soluble or insoluble in the aqueous phase.

63. (New) A composition according to claim 44, comprising up to 1 % by weight of said emulsifier.

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Concluded

FOR FURTHER INFORMATION

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It is asserted that these amendments do not add new matter and are supported by the specification and claims as originally filed. Entry of these amendments is respectfully requested.

Respectfully submitted,

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